



*Optimal Solutions for the Future*

# Lynx 220Y series



---

**Y axis added 6 inch /  
8 inch Compact  
Turning Center**

---

## **Lynx 220Y series**

Lynx 220YA / YC Lynx  
220LYA / LYC Lynx  
220LSYA / LSYC

---

ver. EN 150923 SU

Basic Information

Structure  
Cutting  
Performance

Detailed  
Information

Standard / Options  
Applications  
Diagrams  
Specifications

Customer Support  
Service



# Lynx 220Y series

Lynx Y series is a new model with additional Y axis on the existing Lynx models and enables to complete complex machining using only one setup. Easy and high precision off-center machining is possible and the productivity has been highly improved through outstanding reduction of both cutting time and non-cutting time for complex shapes machining.



## Contents

### 02 Product Overview

#### Basic Information

#### 04 Structure

#### 07 Cutting Performance

#### Detailed Information

#### 08 Standard / Option

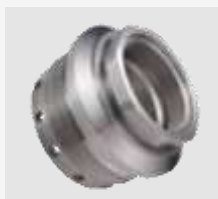
#### 10 Applications

#### 12 Diagrams

#### 20 Specifications

### 22 Customer Support Service

Various customer parts with Y axis complex machining



### Easy machining of complex shapes with One setup

Additional Y axis and sub spindle help to make machining of parts with diverse and complex shapes faster and easier

### High productivity through minimizing non-cutting time

Fast, accurate and high rigidity roller type LM guides are applied on the all axes and quick rotation of turret with servo driven indexing motor maximize the productivity.

### Enhanced user-friendliness for easier and more efficient product operation

User-friendly operation panel configurations, EZ Guide i and EOP(Easy Operation Package) can make easy and comfortable to use various features of the product

Structure

Stable high rigidity bed structure and application of roller type LM guide for all axes realize continued high rigidity and high accuracy of the machine



Model	Chuck size	Travel distance			Rapid traverse		
		X axis	Y axis	Z axis	X axis	Y axis	Z axis
Lynx 220YA / YC	6 / 8 inch	205 mm (8.1 inch)	105 mm (±52.5 mm) (4.1 inch ±2.05 inch)	350 mm (13.8 inch)	30 m/min (1181 ipm)	10 m/min (394 ipm)	36 m/min (1417 ipm)
Lynx 220LYA / LYC				560 mm (22 inch)			
Lynx 220LSYA / LSYC				560 mm (22 inch)			

Machining area & Variation

Lynx 220Y series offers 3 models depending on the difference of turning length and the presence or absence of sub spindle



Model	Max. Turning diameter(a)	Max. Turning length(b)	Sub spindle
Lynx 220YA / YC	300 mm* (11.8 inch)	300 mm (11.8 inch)	X
Lynx 220LYA / LYC		510 mm (20.1 inch)	X
Lynx 220LSYA / LSYC		510 mm (20.1 inch)	O

\* Max. Turning diameter is 236 mm in case that optional 16 station turret is mounted



## High performance Y axis complex machining

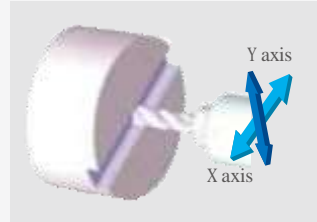
Free operation in all directions of the rotary milling tool using Y axis control perform a variety of complex shape machining easily with high accuracy

Y axis Travel

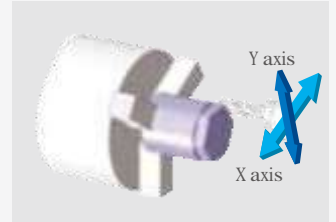
**105(±52.5)mm**  
**(4.1 (+-2.05) inch)**

Y axis Rapid Traverse

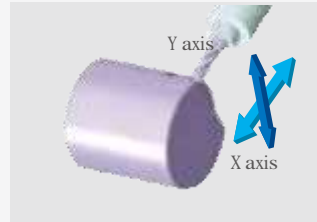
**10m/min**  
**(394 ipm)**



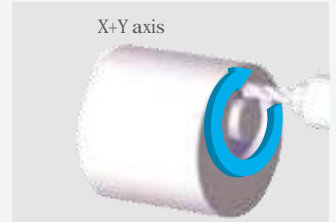
On-center face groove



Poly-side machining



Off-center side groove



X&Y axis circular interpolation



## Multi-tasking functions

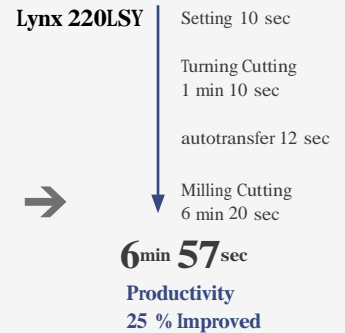
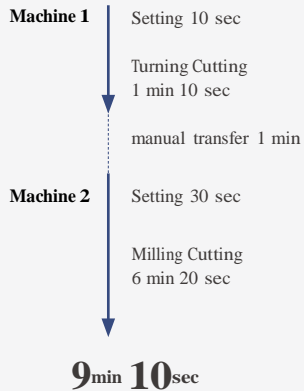
Combined functions of spindle, sub spindle, Y axis and milling realize two or more general machines' manufacturing productivities

Reduced production lead time

**25%**



Workpiece : Machinery Component  
Material : Aluminum (AL7075)  
Workpiece size : Ø70 x 35 mm  
Cutting tool : 16 set



\* Cutting time curtailment : Tool change time & Rapid traverse rate Calculation

LynxSeries added with SY-axis, enabling One Set-up  
**Save time, reduce labor, high accuracy !**

2 set-up / 2 operators



Machine 1

+



Machine 2

=



Lynx 220LSY

1 set-up / 1 operator

## Spindle

DOOSAN's best-in-class high performance spindle allows heavy duty machining of large diameter parts as well as high speed high precision machining

## Main Spindle

Powerful spindle motor is capable of 0.001 degree high accuracy C axis control and can provide large bar diameter capacity until 65 mm bar working diameter.

Max. Spindle Speed

**6000** r/min

Spindle Motor Power

**15** kW (20 Hp)

\* Model : Lynx 220YA/LYA/LSYA

C axis

Model	Max. spindle speed	Spindle motor power	Max. spindle torque
Lynx 220YA / LYA / LSYA	6000 r/min	15 kW (20 Hp)	127 N·m (94 lbf ft)
Lynx 220YC / LYC / LSYC	4500 r/min	15 kW (20 Hp)	169 N·m (125 lbf ft)

## Sub Spindle (Lynx 220LSYA / C)

C axis synchronization between main spindle and sub spindle is possible and various machining functions including turning, milling and cutting on the sub spindle can be performed using a single set up

Max. sub spindle speed

**6000** r/min

Min. C axis indexing angle

**0.001** deg. (360 degree indexing).

## Tailstock (Lynx 220LYA / C)

Widely spaced guideways and heavy-duty design of the tailstock body ensure outstanding rigidity and precision. In particular, the programmable type tailstock offers EZ function\* for automatic work piece location setting.

Quill bore taper

**MT#4**

Convenience Features

**EZ function\*** option

\* available at the programmable type tailstock only





## Turret

Servo driven indexing raise the reliability and BMT type milling turret ensures high rigidity.

### Servo driven Turret

High torque servo motor controls rotational acceleration and deceleration of turret and clamping/unclamping operations and its excellent dividing position brings continual high machining accuracy.

Number of Tool stations

**12<sup>ea</sup>** (16ea option)

Indexing time  
(1 station swivel)

**0.11<sup>s</sup>**



12station Turret



16station Turret

### Servo driven Turret

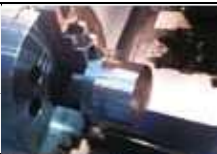




High torque servo motor controls rotational acceleration and deceleration of turret and clamping/unclamping operations and its excellent dividing position brings continual high machining accuracy.

Max. Rotary Tool Speed

**6000** r/min



### Cutting Performance

OD turning (turning dia. 88 mm (3.5 inch))				
Cutting speed	Feedrate	Cutting depth	Chip revoval rate	
210 m/min (8268 ipm)	0.5 mm/rev (0.02 ipr)	4 mm (0.16 inch)	399 cm3/min (24.3 inch3/min)	
U-drilling (2 axis)				
U drill dia.	Spindle speed	Cutting speed	Feedrate	
Ø 63 mm (2.5 inch)	1011 r/min	200 m/min (7874 ipm)	0.15 mm/rev (0.006 ipr)	
Drilling				
Tool dia.	Milling spindle speed	Cutting speed	Feedrate	
Ø 12 mm (0.5 inch)	3184 r/min	120 m/min (4724 ipm)	0.20 mm/rev (0.008 ipr)	
Endmill				
Tool dia.	Cutting speed	Feedrate	Cutting depth	
Ø 12 mm (0.5 inch)	60 m/min (2362 ipm)	300 mm/rev (11.8 ipr)	14 mm (0.6 inch)	
Tapping				
Tool	Milling spindle speed	Cutting speed	Feedrate	
M14 X P1.75	387 r/min	17 m/min (669 ipm)	1.75 mm/rev (0.07 ipr)	
* The results, indicated in this catalogue are provides as example. They may not be obtained due to differences in cutting conditions and environmental conditions during measurement.				

Standard / Optional Specifications

Diverse optional devices and features are available to meet specific customer requirements.

Standard Optional X N/A								
NO.	Description	Features	Lynx 220YA	Lynx 220YC	Lynx 220LYA	Lynx 220LYC	Lynx 220LSYA	Lynx 220LSYC
1	Chuck	6 inch	●	X	●	X	●	X
2		8 inch	○	●	○	●	○	●
3		10 inch	X	○	X	○	X	○
4		No chuck	○	○	○	○	○	○
5		5 inch (for sub spindle)	X	X	X	X	●	●
6	Jaw	Soft jaw	●	●	●	●	●	●
7		Hard jaw	○	○	○	○	○	○
8	Chucking Option	Dual pressure chucking	○	○	○	○	○	○
9		Chuck clamp confirmation	○	○	○	○	○	○
10	Tailstock	Manual	X	X	●	●	X	X
11		Programmable	X	X	○	○	X	X
12	Coolant Pump	1.5 bar	●	●	●	●	●	●
13		Increase Power (4.5/7/10/14.5/20 bar)	○	○	○	○	○	○
14	Coolant options	Chuck coolant	○	○	○	○	○	○
15		TSC for sub spindle	X	X	X	X	○	○
16		Coolant chiller	○	○	○	○	○	○
17		Oil skimmer	○	○	○	○	○	○
18		Coolant pressure switch	○	○	○	○	○	○
19		Coolant level switch	○	○	○	○	○	○
20		Coolant gun	○	○	○	○	○	○
21	Chip disposal options	Side type chip conveyor	○	○	○	○	○	○
22		Rear type chip conveyor	○	○	○	○	○	○
23		Chip bucket	○	○	○	○	○	○
24		Air blower	○	○	○	○	○	○
25		Mist collector interface	○	○	○	○	○	○
26		Integrated mist collector	○	○	○	○	○	○
27	Measuring & automation	Tool setter (manual/automatic)	○	○	○	○	○	○
28		Part catcher with parts box	○	○	○	○	○	○
29		Part catcher with parts conveyor	○	○	○	○	○	○
30		Workpiece ejector	X	X	X	X	○	○
31		Auto door	○	○	○	○	○	○
32		Bar feeder interface	○	○	○	○	○	○
33		Robot interface	○	○	○	○	○	○
34	Others	Tool load monitoring system	○	○	○	○	○	○
35		Linear scale	○	○	○	○	○	○
36		Signal tower	○	○	○	○	○	○
37		Air gun	○	○	○	○	○	○
38		Automatic power off	○	○	○	○	○	○



### Oil skimmer option

The oil skimmer keeps coolant and lubricant isolated from each other for extending life cycle of coolant.



### Tool setter option

The tool setter facilitates setting of tools, and fast and precise length compensation of worn tools



### Mist collector option

The mist collector absorbs airborne oil vapor and fine dusts in the system to improve working environment.



### Chip conveyor option



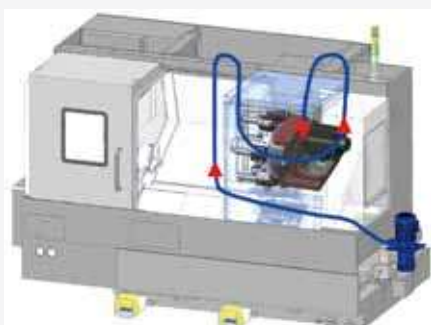
Chip conveyor type	Material	Description
Hinged belt	Steel	Most typical type of chip conveyor. Appropriate for steel materials generating chips of length of 30 mm or more.
Screw	Steel	Chip conveyor with smallest footprint. Demands 80% of footprint comparing to hinged belt.
Magnetic scrapper	Cast iron	Chip conveyor with magnet equipped: Appropriate for cast iron workpieces generating fine chips.

### Part catcher option

The part catcher automatically accepts parts completed of machining, and ejects them out of the system.



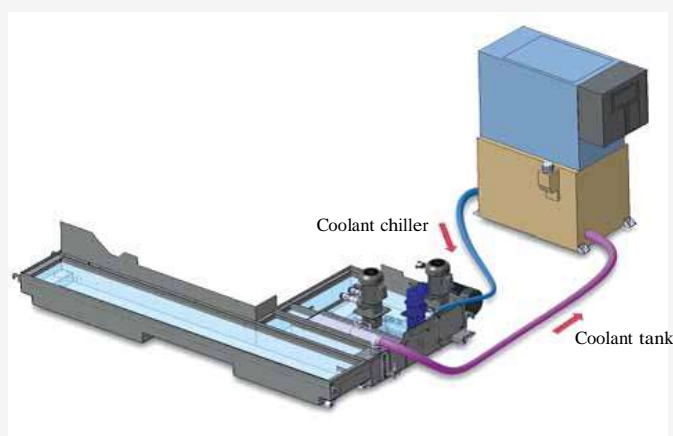
### Coolant system



Coolant pump	Output pressure (bar)	std./opt.
Pump1	1.5	std.   opt.
Pump2	4.5	
Pump3	7	
Pump4	10	
Pump5	14.5	
Pump6	20	

### Coolant chiller option

Detachable coolant chiller is recommended to keep thermal error minimal and get higher machining precision.



## Basic Information

Structure  
Cutting  
Performance

Apply Fanuc CNC on the Doosan machine to fulfill best performance and productivity

## Detailed Information

Standard / Options  
Applications  
Diagrams  
Specifications

## Customer Support Service



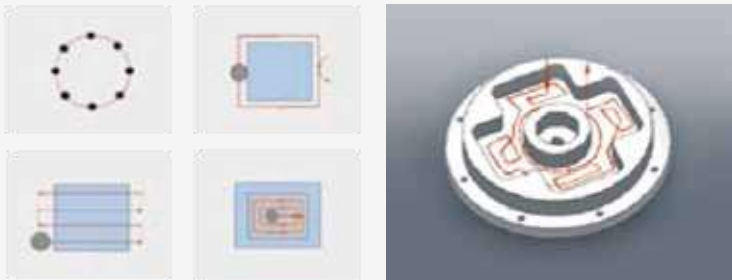
- 10.4 inch Display
- USB & PCMCIA card (Std.)
- Qwerty type keyboard
- Ergonomic new design
- Easy to put button switch for attached option

## EZ-Guide i

Using the DOOSAN EZ-Guide i, users can create a cutting program for any desired shape, including patterns, by entering figures only.

## Exemplary programming

## Exemplary cutting shape



## EZ-Guide i screen



Enter the dimensions of the shape.

## Automatic creation of cutting program

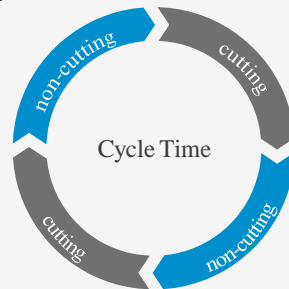
```
O7000 (SAMPLE PROGRAM) ;
##
M3 S1500 ;
G0 X50. Y125. ;
G0 Z30. ;
G1040 T0.5 J3. H0.2 K0.5 ## ;
G1020 H120. V50. U37. W68. ## ;
G0 Z80. ;
M5 ;
```

A cutting program is automatically created with the entered values.

## Productivity Improvement

Increase Productivity

Reduced non-cutting time  
by **10%**



Minimizes non-cutting time to further improve productivity.

## Easy Operation Package

### G Code / M Code list



Operator can check the meaning of each G-code / M-code.

### Calculator



Operator can calculate numerical formula in relation to arc and hole easily.

### Turret maintenance and service screen



The condition and service procedures of the sensors are provided for easy maintenance and servicing of major units.

### Operation rate



Function allows users to easily keep track of machine operating hours and the number of completed parts.

### Tool load monitoring option



This function detects overload on tools, caused by wear and damage, and triggers an alarm to minimize damage.

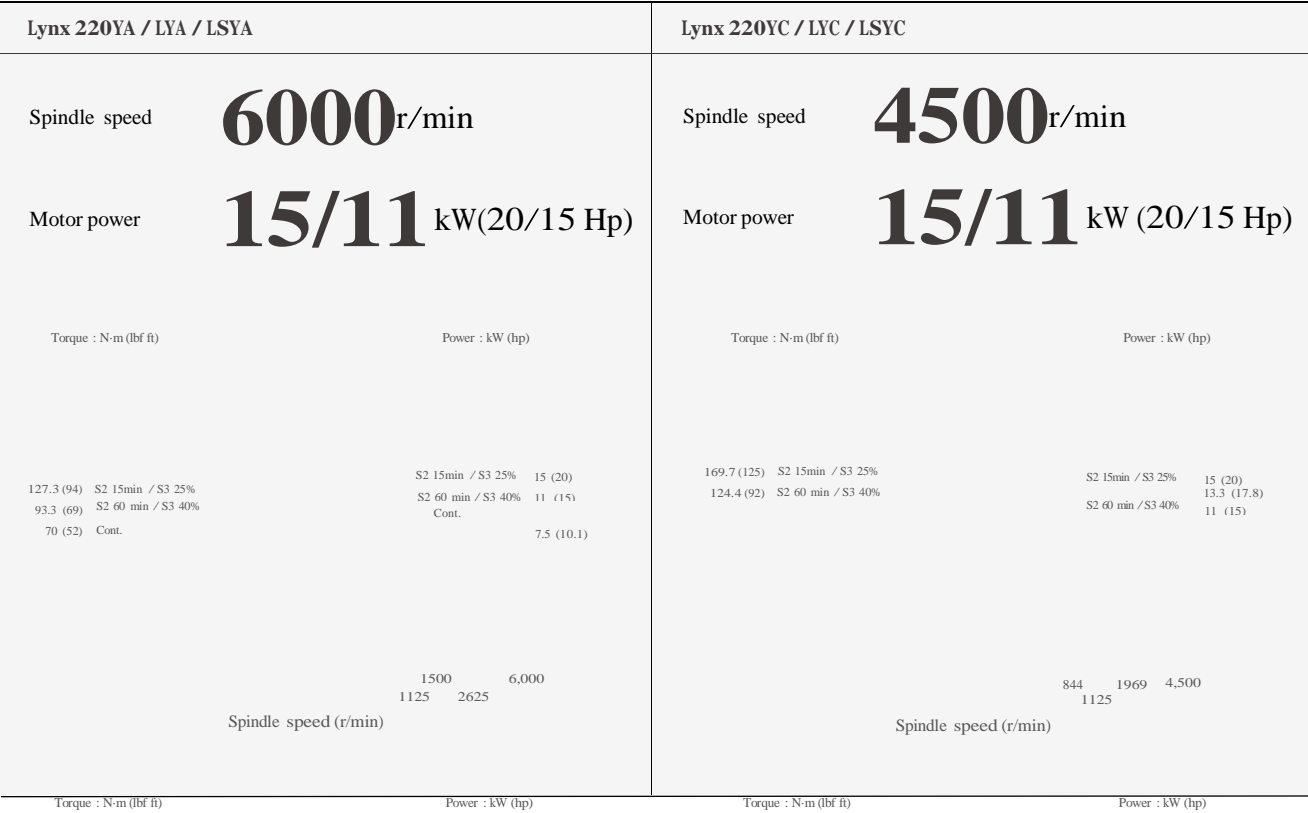
### Tail stock thrust force setting option



This function allows users to easily setup tailstock thrust force on the screen.

Spindle Power – Torque Diagram

Main Spindle



Sub Spindle

Rotary Tool Motor



External Dimensions

Top View

B

B

A

A

Front View

chip conveyor

C

□ 500 □ 4

E

D

Unit: mm (inch)

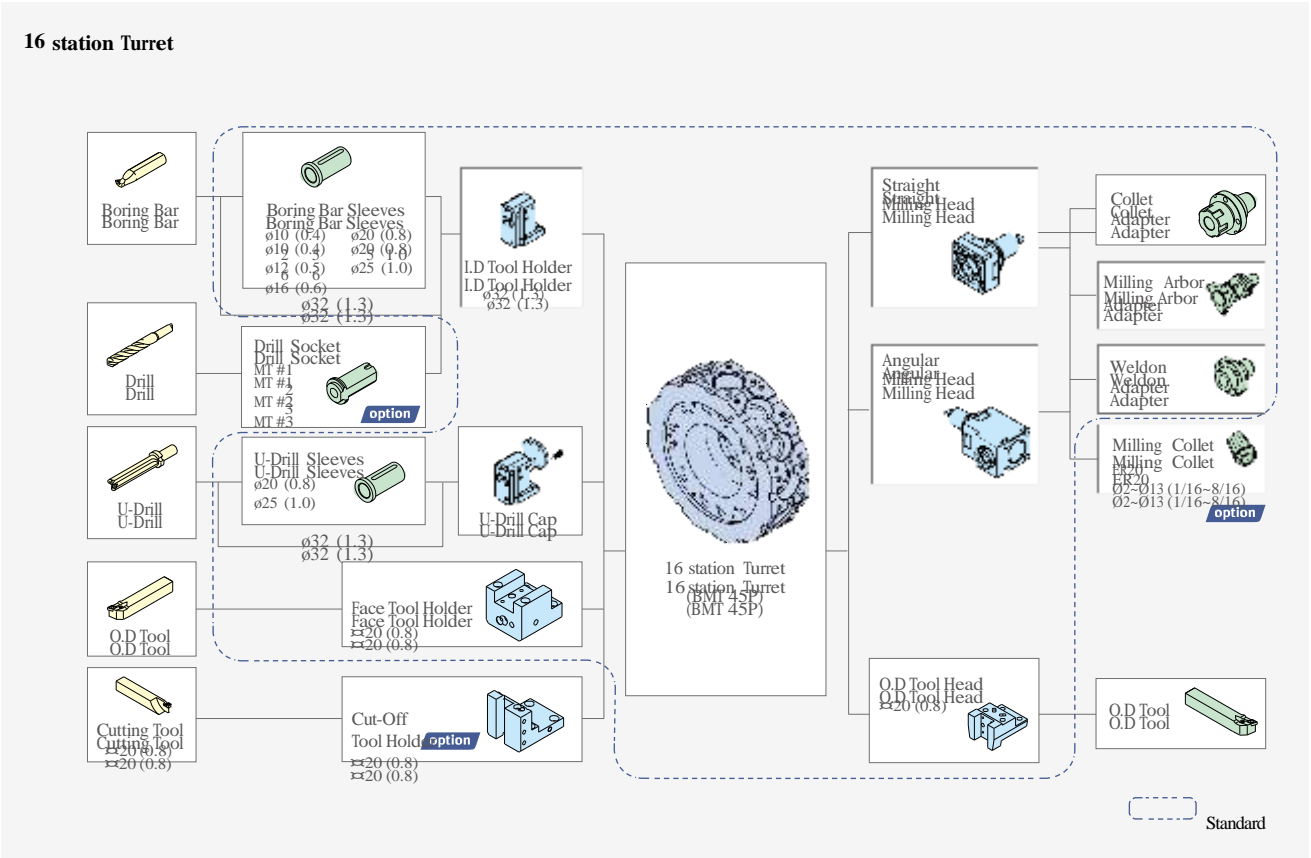
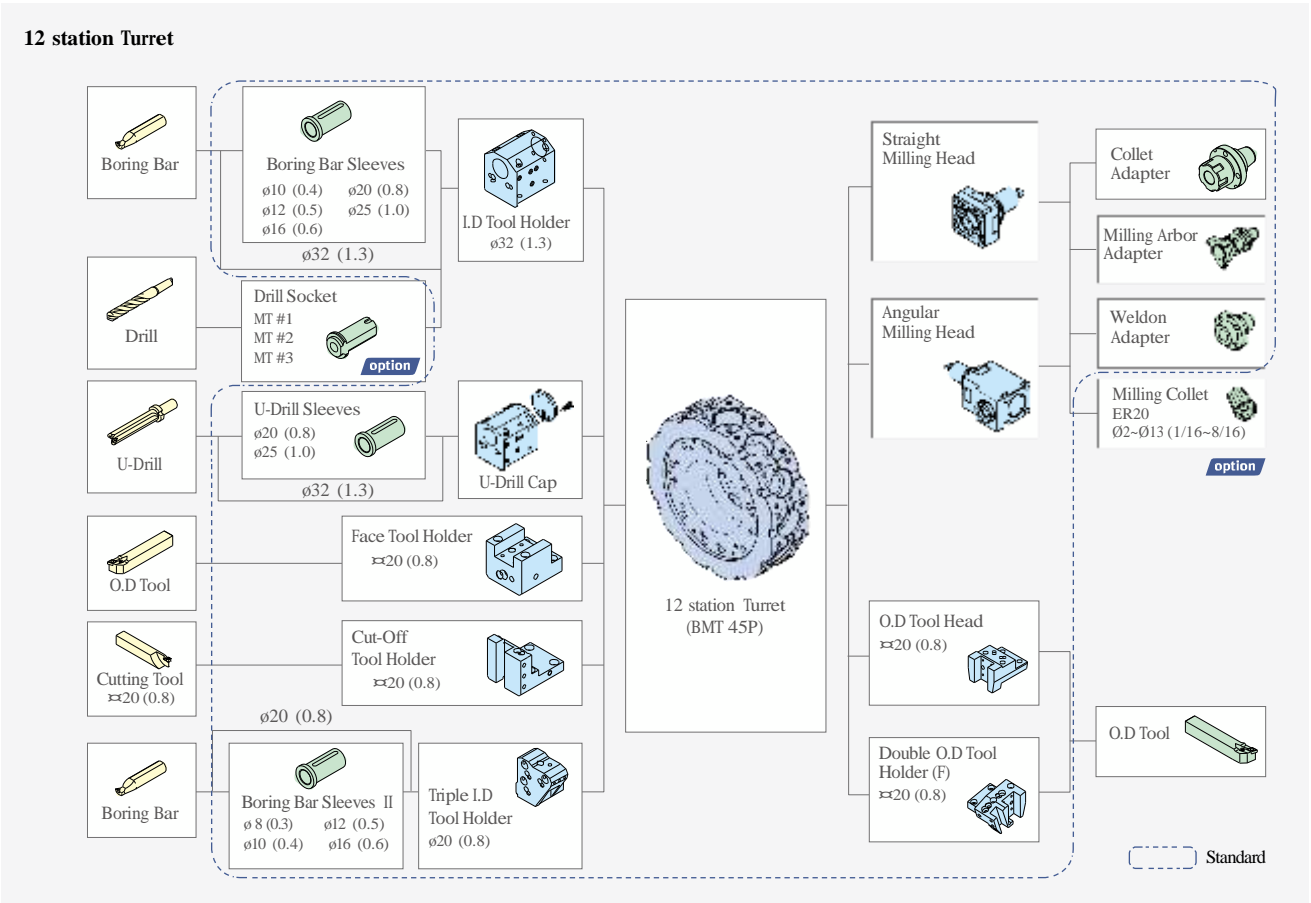
	A	B	C	D*	E*
Lynx 220YA / C	2460 (96.9)	1710 (67.3)	1920 (75.6)	3459 (136.2)	775 (30.5)
Lynx 220LYA / LSYA	2850 (112.2)	1710 (67.3)	1920 (75.6)	3896(153.4)	780 (30.7)
Lynx 220LYC / LSYC	2880 (113.4)	1710 (67.3)	1920 (75.6)	3926 (154.6)	780 (30.7)

\* D, E : on the basis of fitting hinged belt type chip conveyor

Tooling system

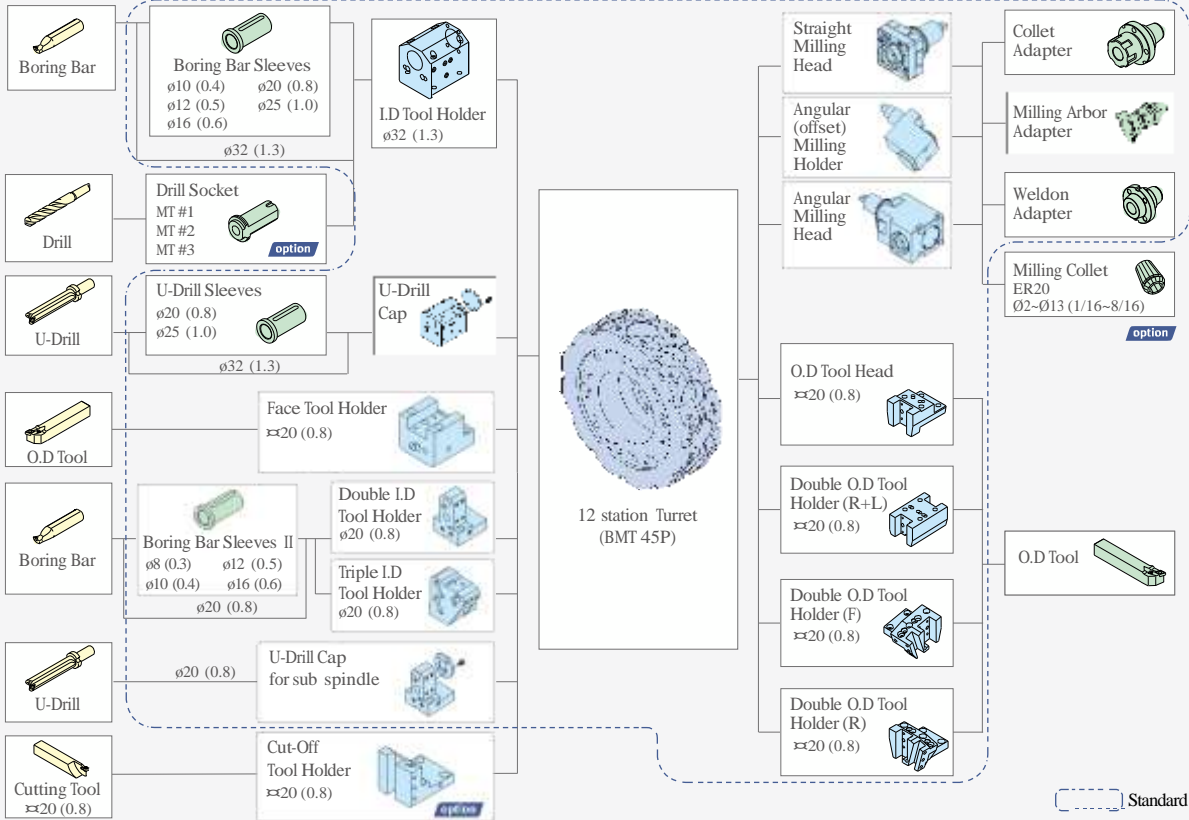
Lynx 220Y / LY

Unit: mm (inch)

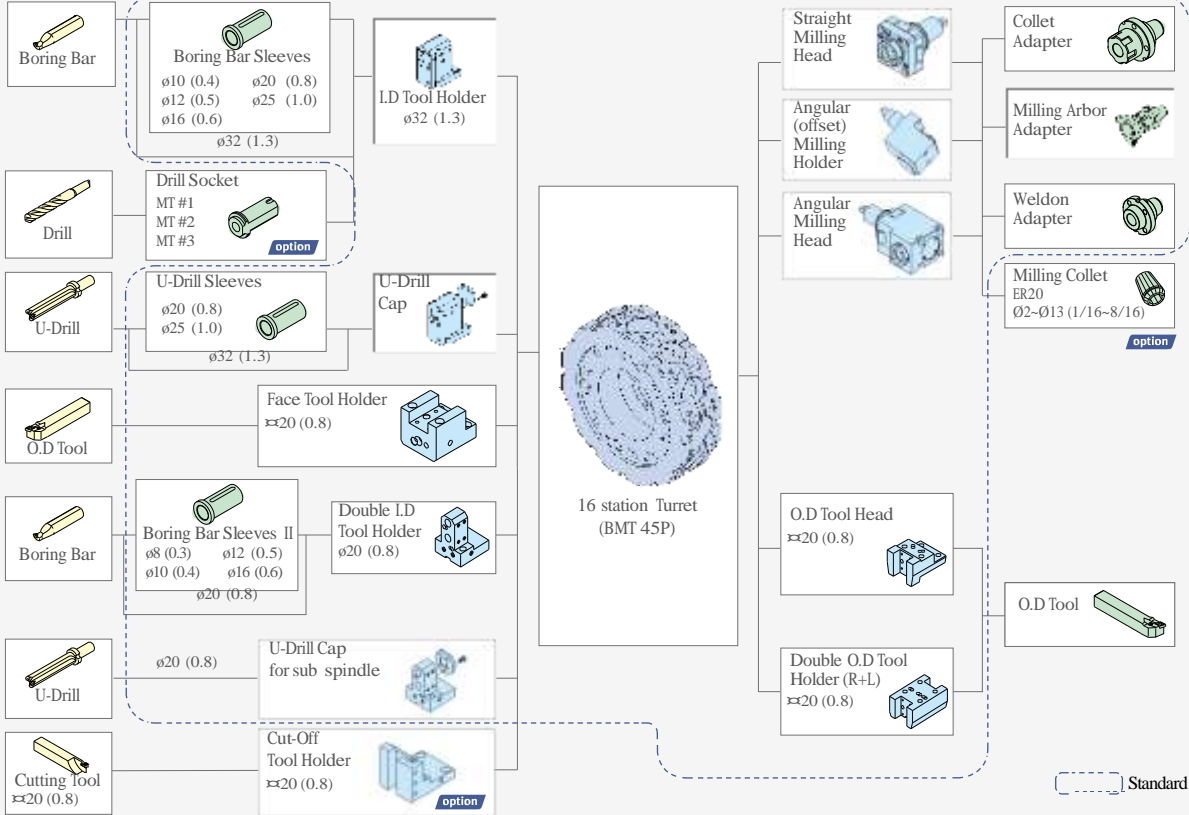




12 station Turret



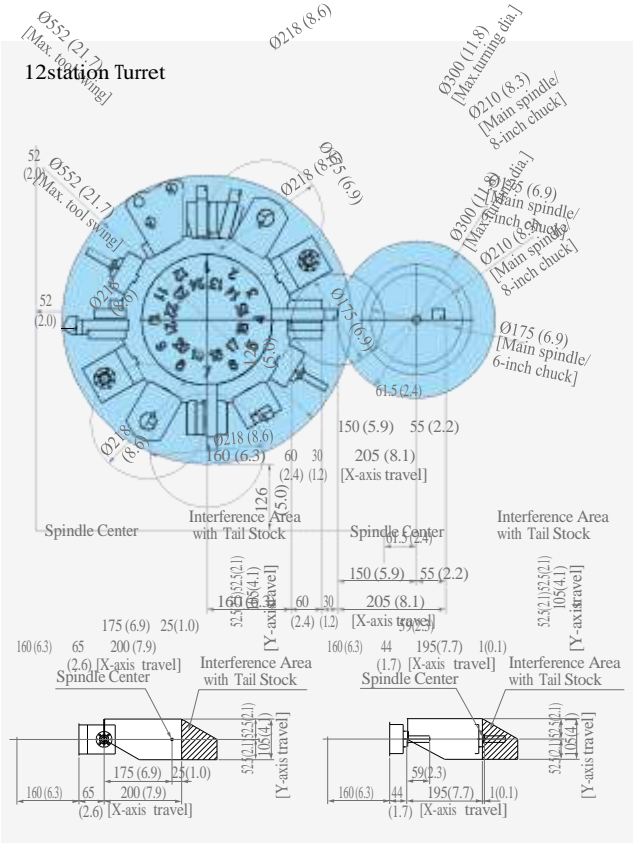
16 station Turret



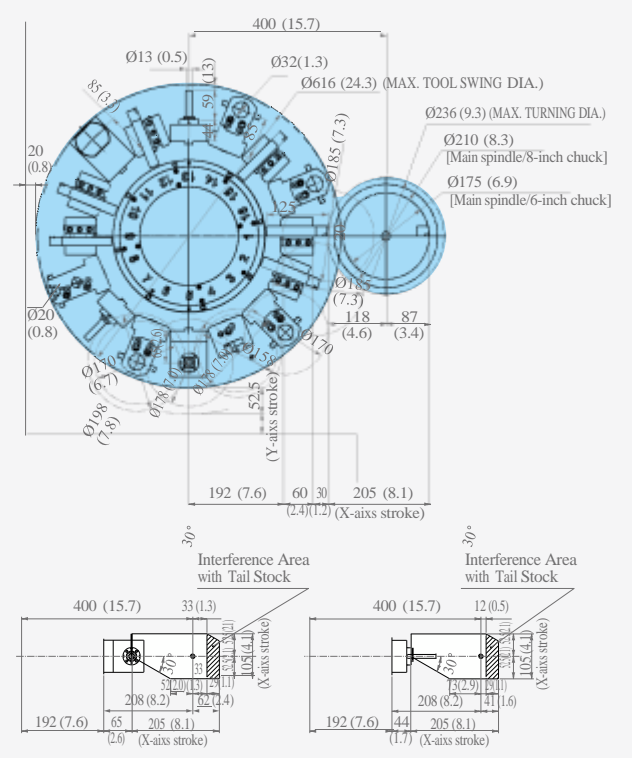
Tool interference diagram

Lynx 220Y / LY

Unit: mm (inch)

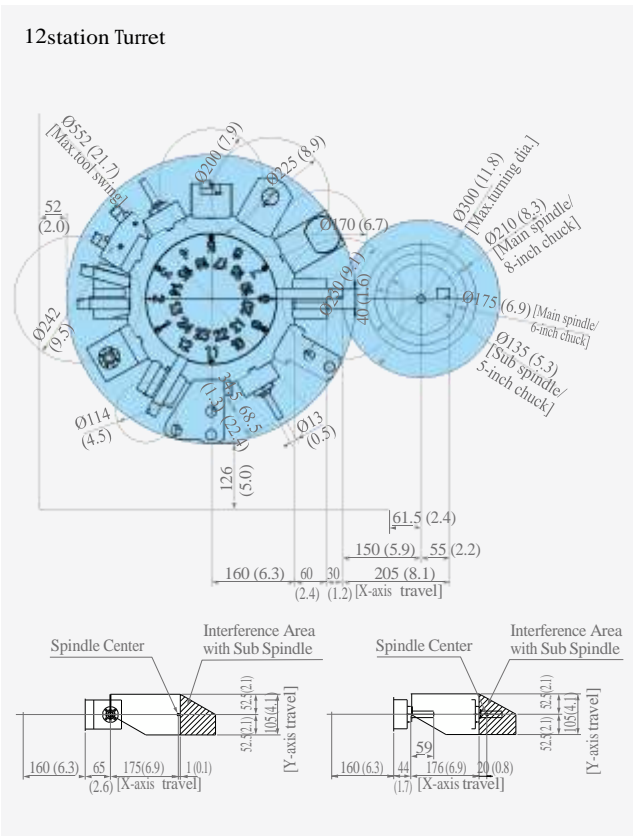


16station Turret

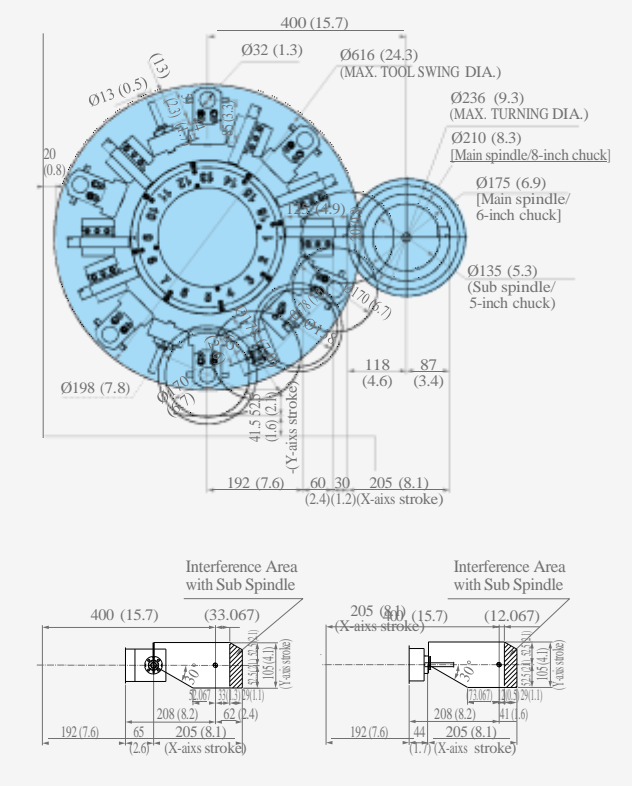


Lynx 220LSY

Unit: mm (inch)



16station Turret

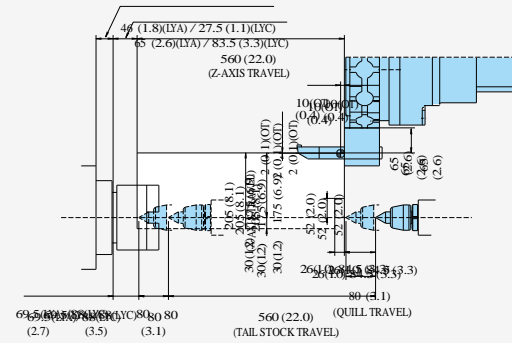


Working Range

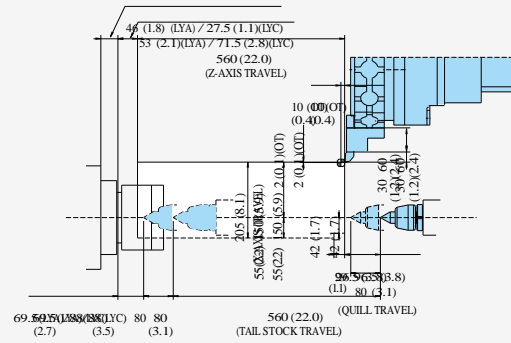
Lynx 220LYA / LYC

Unit: mm (inch)

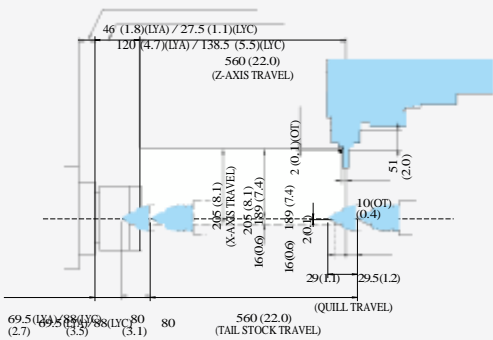
ID Tool



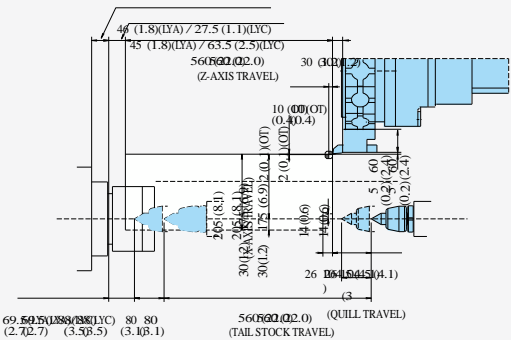
OD Tool



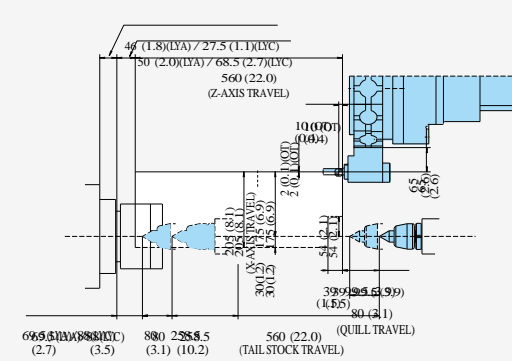
Straight Milling



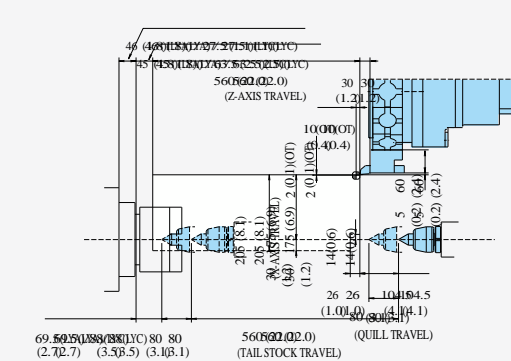
Face Tool



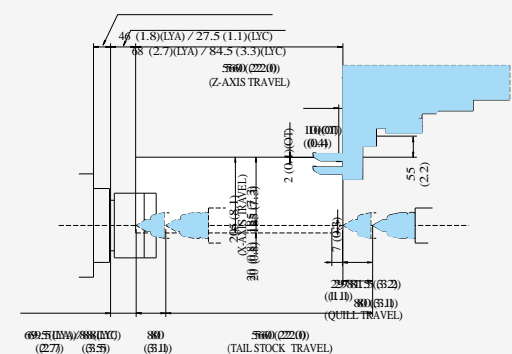
Angular Milling



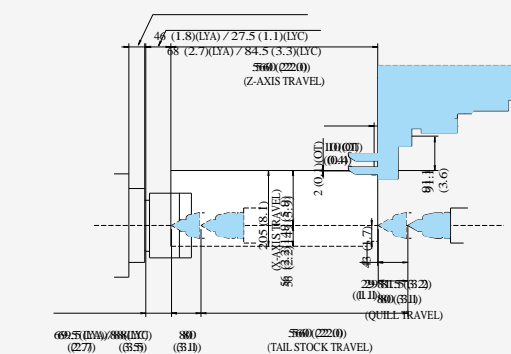
Cut Off Holder



Triple ID Tool



Triple ID Tool

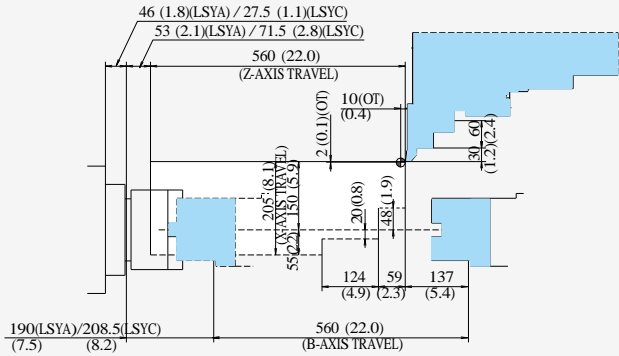


Working Range

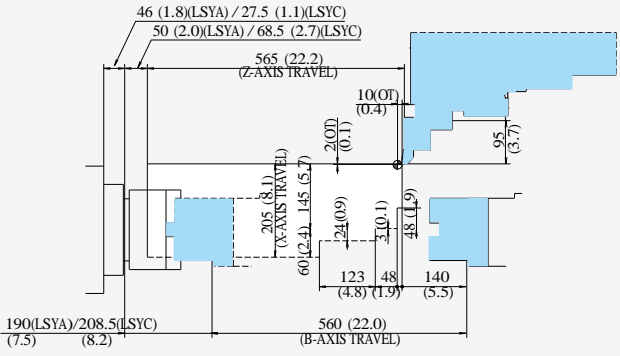
Lynx 220LSYA / LSYC

Unit: mm (inch)

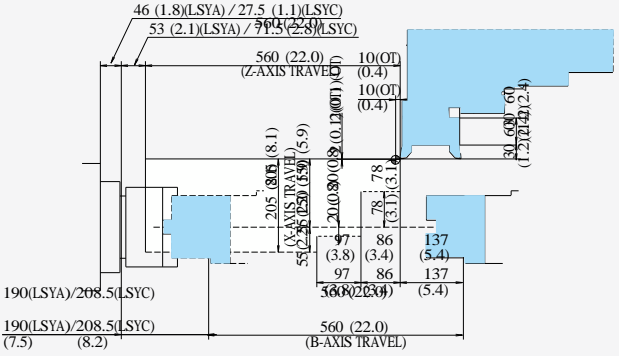
ID Tool



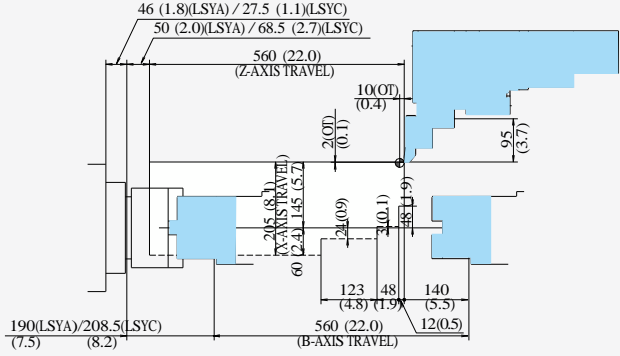
Double ID Tool



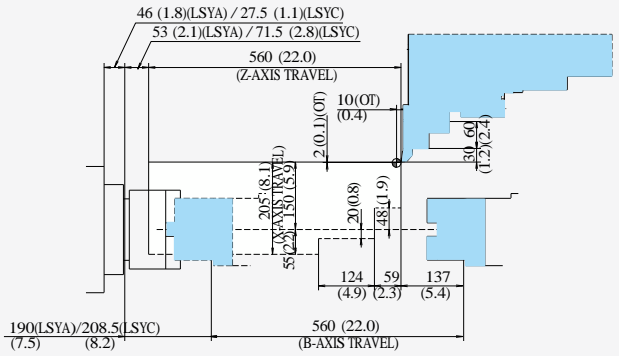
Triple ID Tool



Face Tool

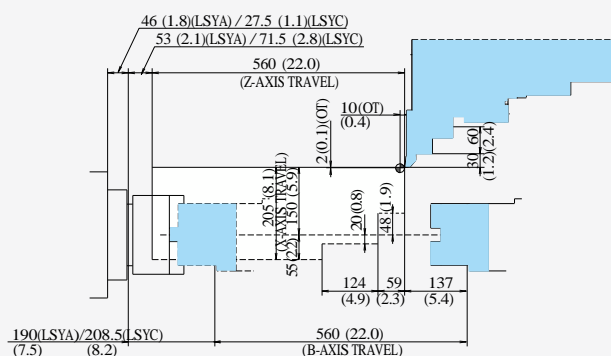


OD Tool

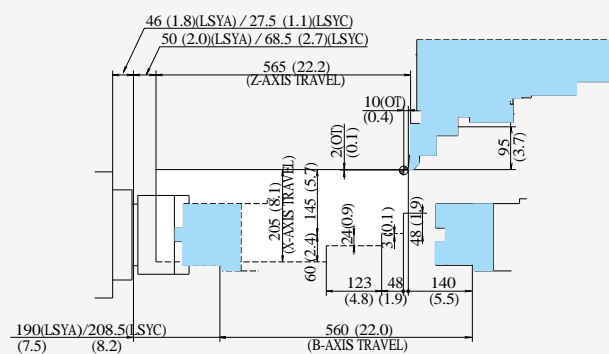


10 (OT) (0.4)  
2 (OT) (0.1)  
123 (4.8) (1.9) (5.5)

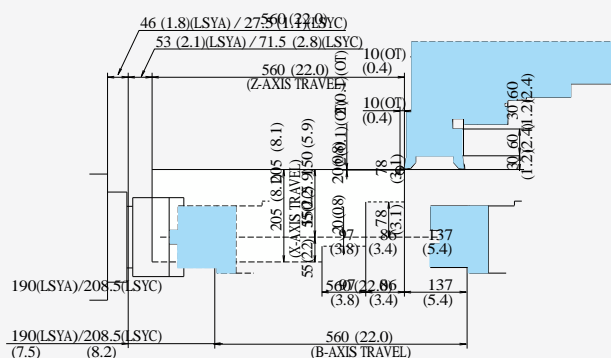
Double OD Tool [Main / Sub]



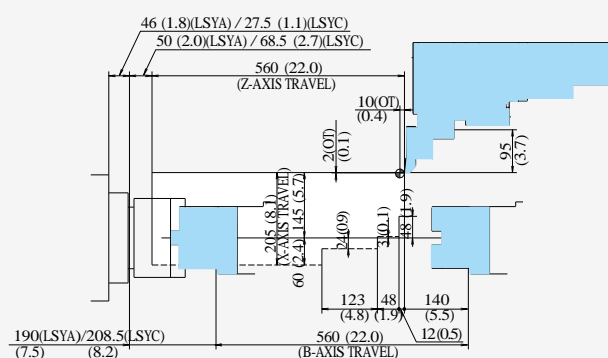
## Straight Milling



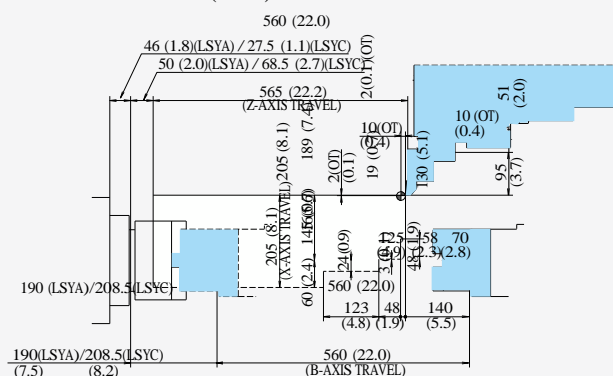
## Angular Milling



### Angular Milling (offset)



## Double OD Tool (Main)



Basic Information

- Structure
- Cutting
- Performance

Detailed Information

- Standard / Options
- Applications
- Diagrams
- Specifications

Customer Support Service

Machine specifications



Features			Unit	Lynx 220YA	Lynx 220YC	Lynx 220LYA	Lynx 220LYC	Lynx 220LSYA	Lynx 220LSYC
Capacity	Swing over bed		mm (inch)	600 (23.6)					
	Swing over saddle		mm (inch)	400 (15.7)					
	Recom. Turning diameter		mm (inch)	170 (6.7)	210 (8.3)	170 (6.7)	210 (8.3)	170 (6.7)	210 (8.3)
	Max. Turning diameter		mm (inch)	300 (11.8)					
	Max. Turning length		mm (inch)	300 (11.8)		510 (20.1)			
	Chuck size		inch	6	8	6	8	6	8
	Bar working diameter		mm (inch)	51 (2.0)	65 (2.6)	51 (2.0)	65 (2.6)	51 (2.0)	65 (2.6)
Travels	Travel distance	X-axis	mm (inch)	205 (8.1)					
		Y-axis	mm (inch)	105(±52.5)					
		Z-axis	mm (inch)	350 (13.8)		560 (22.0)			
Feedrates	Rapid Traverse Rate	X-axis	m/min (ipm)	30 (1181)					
		Y-axis	m/min (ipm)	10 (394)					
		Z-axis	m/min (ipm)	36 (1417)					
Spindle	Max. Spindle speed		r/min	6000	4500	6000	4500	6000	4500
	Main spindle motor power		kW(Hp)	15 / 11 (20 / 15) (30min. / cont.)					
	Max. Spindle Torque for Turning		N-m (lbf ft)	127 (94)	169 (125)	127 (94)	169 (125)	127 (94)	169 (125)
	Spindle nose		ASA	A2-5	A2-6	A2-5	A2-6	A2-5	A2-6
	Spindle bearing diameter (Front)		mm (inch)	90 (3.5)	110 (4.3)	90 (3.5)	110 (4.3)	90 (3.5)	110 (4.3)
	Spindle through hole diameter		mm (inch)	61 (2.4)	76 (3.0)	61 (2.4)	76 (3.0)	61 (2.4)	76 (3.0)
	Min. spindle Indexing angle(C-axis)		deg	0.001					
Sub spindle	Max. Spindle speed		r/min	-				6000	
	Main spindle motor power		kW(Hp)	-				5.5 / 3.7 (7.5 / 5) (30min. / cont.)	
	Max. Spindle Torque for Turning		N-m (lbf ft)	-				46 (34)	
	Spindle nose		FLAT	-				Ø110 (4.3)	
	Spindle bearing diameter (Front)		mm (inch)	-				75 (3.0)	
	Spindle through hole diameter		mm (inch)	-				43 (1.7)	
	Min. spindle Indexing angle(C-axis)		deg	-				0.001	
Turret	No. of tool stations		ea	12(24 Position Index) [16]*					
	OD tool size		mm (inch)	20 (0.8)					
	Max. boring bar size		mm (inch)	32 / 20 (1.3 / 0.8)					
	Turret Indexing time (1 station swivel)		s	0.11					
	Max. Rotary tool speed		r/min	6000					
	Rotary tool motor power		kW(Hp)	3.7 (5)					
Tailstock	Tailstock travel		mm (inch)	-		560 (22.0)		-	
	Quill diameter		mm (inch)	-		65 (2.6)		-	
	Quill travel		mm (inch)	-		80 (3.1)		-	
	Quill bore taper		MT	-		MT#4		-	
Power source	Electric power supply(rated capacity)		kVA	28.22				34.09	
Machine Dimensions	Length		mm (inch)	2460 (96.9)		2850 (112.2)	2880 (113.4)	2850 (112.2)	2880 (113.4)
	Width		mm (inch)	1710 (67.3)					
	Height		mm (inch)	1920 (75.6)					
	Weight		kg (lb)	3500 (7700)	3600 (7920)	3850 (8470)	3900 (8580)	4150 (9130)	4150 (9130)
CNC	NC system			DOOSAN-FANUC i					



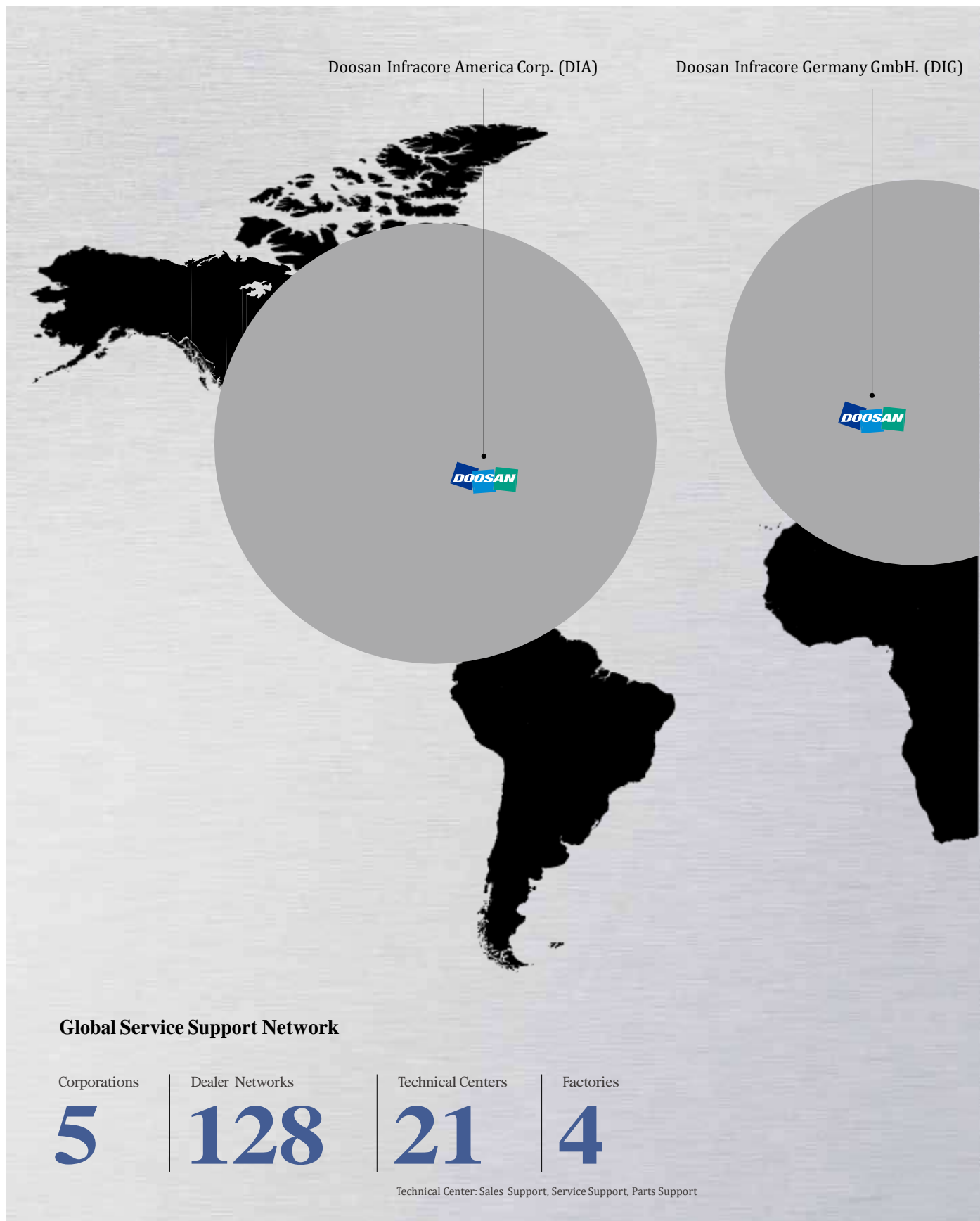
## NC unit specifications

Standard Optional X N/A

### DOOSAN- FANUC i

NO.	Specification		Y/IY	LSY
1	Controlled axis	Controlled axes	4(X,Z,C,Y)	6(X,Z,C1,Y,C2,B)
2		Axis control by PMC	●	●
3		Synchronous/Composite control (C1 & C2 Synchro Control)	X	●
4		Torque control	●	●
5		Inch/metric conversion	●	●
6		Stored limit check before move	●	●
7		Unexpected disturbance torque detection function	●	●
8		Position switch	●	●
9	Operation	DNC operation with memory card	●	●
10		Handle interruption	○	○
11		Manual handle retrace	○	○
12	Interpolation functions	Nano interpolation	●	●
13		Linear interpolation	●	●
14		Circular interpolation	●	●
15		Helical interpolation	●	●
16		Thread cutting, synchronous cutting	●	●
17		Thread cutting retract	●	●
18		Continuous threading	●	●
19		High-speed skip	○	○
20	feed function	2nd/3rd/4th reference position return	Input signal is 8 points. G30	●
21		AI contour control I	○	○
22		AI contour control II	○	○
23		Rapid traverse block overlap	●	●
24	Program input	Optional block skip	9 pieces	●
25		Absolute/incremental programming	Combined use in the same block	●
26		Diameter/Radius programming	●	●
27		Automatic coordinate system setting	●	●
28		Workpiece coordinate system	G52 - G59	●
29		Chamfering/Corner R	●	●
30		Custom macro	●	●
31		Addition of custom macro common variables	#100 - #199, #500 - #999	●
32		Interruption type custom macro	●	●
33		Canned cycle	●	●
34		Multiple repetitive cycles	G70~G76	●
35		Multiple repetitive cycles II	Pocket profile	●
36		Canned cycle for drilling	●	●
37		Coordinate system shift	●	●
38		Direct input of coordinate system shift	●	●
39		Pattern data input	●	●
40	Operation Guidance Function	EZ Guidei(Conversational Programming Solution)	●	●
41		EZ Operation package	●	●
42	Auxiliary/Spindle speed function	Constant surface speed control	●	●
43		Rigid tap	●	●
44		Arbitrary speed threading	○	○
45	Tool function/Tool compensation	Tool offset pairs	64-pairs	X
46		Tool offset pairs	99-pairs	X
47		Tool offset pairs	128-pairs	●
48		Tool offset pairs	200-pairs	○
49		Tool radius/Tool nose radius compensation	●	●
50		Tool geometry/wear compensation	●	●
51		Automatic tool offset	G36/G37	●
52		Direct input of offset value measured B	●	●
53		Tool life management	●	●
54	Accuracy compensation function	Backlash compensation for each rapid traverse and cutting feed	●	●
55		Stored pitch error compensation	○	○
56	Editing operation	Part program storage size & Number of registerable programs	1280M(512KB)_400 programs	X
57		Part program storage size & Number of registerable programs	2560M(1MB)_800 programs	●
58		Part program storage size & Number of registerable programs	5120M(2MB)_400 programs	X
59		Part program storage size & Number of registerable programs	5120M(2MB)_800 programs	○
60		Playback	●	●
61	Data input/output	Fast data server	○	○
62		External data input	●	●
63		Memory card input/output	●	●
64		USB memory input/output	●	●
65		Automatic data backup	○	○
66	Interface function	Embedded Ethernet	●	●
67		Fast Ethernet	○	○
68	Others	Display unit	10.4" color LCD	●
69	Robot interface	Robot interface with PMC I/O module	○	○
70		Robot interface with PROFIBUS-DP	○	○

# Responding to Customers Anytime, Anywhere

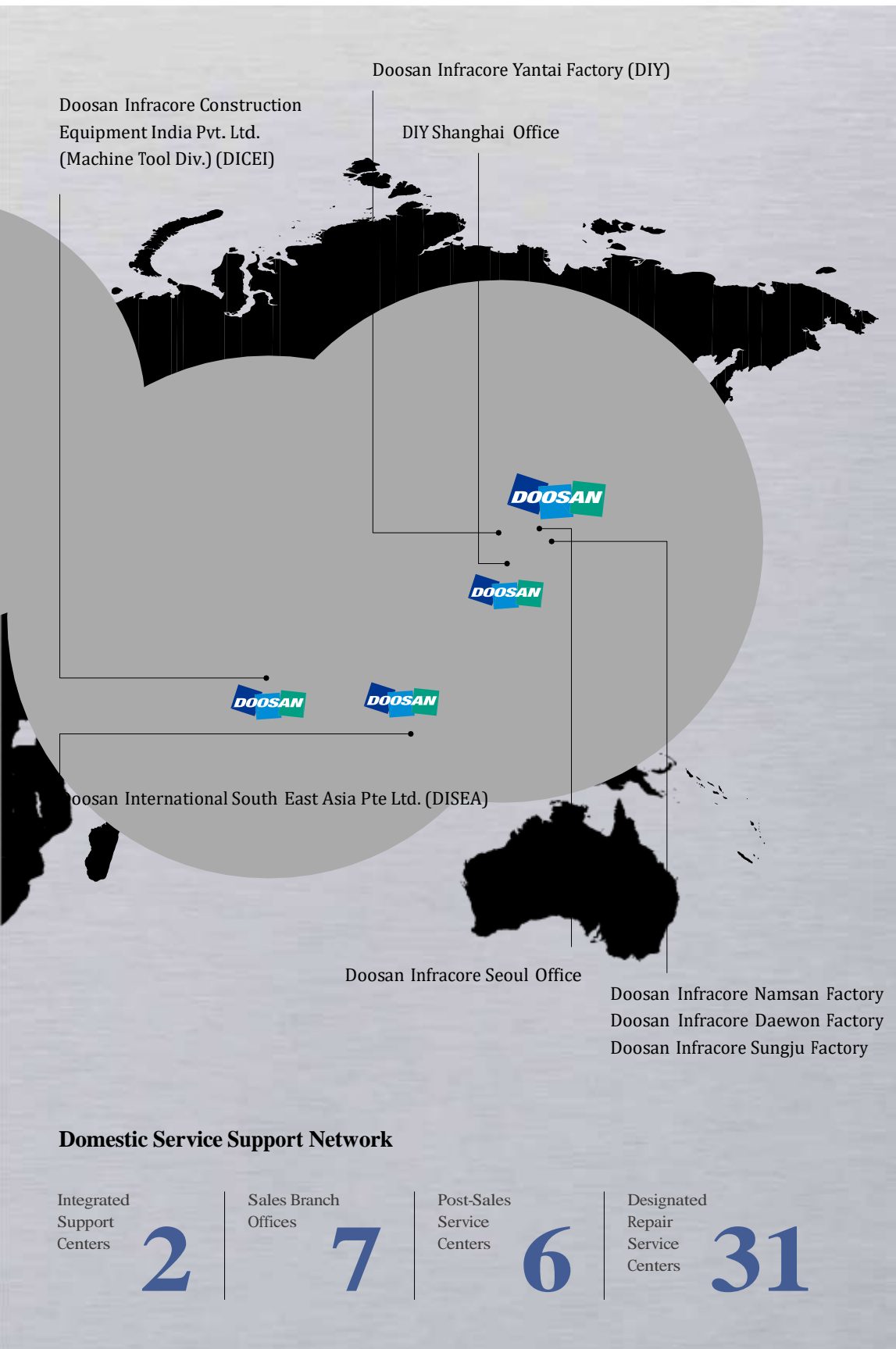


## Doosan Machine Tools' Global Network, Responding to Customer's Needs nearby, Anytime, Anywhere

Doosan machine tools provides a system-based professional support service before

and after the machine tool sale by responding quickly and efficiently to customers' demands.

By supplying spare parts, product training, field service and technical support, we can provide top class support to our customers around the world.



## Customer Support Service

We help customers to achieve success by providing a variety of professional services from pre-sales consultancy to post-sales support.

### Supplying Parts



- Supplying a wide range of original Doosan spare parts
- Parts repair service

### Field Services



- On site service
- Machine installation and testing
- Scheduled preventive maintenance
- Machine repair

### Technical Support



- Supports machining methods and technology
- Responds to technical queries
- Provides technical consultancy

### Training



- Programming / machine setup and operation
- Electrical and mechanical maintenance
- Applications engineering

## Main Specifications

### Lynx 220Y



Description	UNIT	Lynx 220YA / LYA / LSYA	Lynx 220YC / LYC / LSYC
Max. turning dia.	mm (inch)	300 (11.8)	
Max. turning length	mm (inch)	300 / 510 / 510 (11.8 / 20.1 / 20.1)	
Standard chuck size	inch	6	8
Bar working dia.	mm (inch)	51 (2)	65 (2.6)
Max. spindle speed	r/min	6000	4500
Max. spindle power	kW (Hp)	15 (20)	
NC system	-	DOOSAN-FANUC i	



## Doosan Machine Tools

<http://www.doosanmachinetools.com>

### Optimal Solutions for the Future

#### Head Office

Doosan Tower 20th FL., 275, Jangchungdan-Ro  
(St), Jung-Gu, Seoul  
Tel +82-2-3398-8693 / 8671 / 8680  
Fax +82-2-3398-8699

#### Doosan Infracore America Corp.

19A Chapin Rd., Pine Brook, NJ 07058, U.S.A.  
Tel +1-973-618-2500  
Fax +1-973-618-2501

#### Doosan Infracore Germany GmbH

Emdener Strasse 24, D-41540 Dormagen,  
Germany  
Tel +49-2133-5067-100  
Fax +49-2133-5067-001

#### Doosan Infracore Yantai Co., LTD

13 Building, 140 Tianlin Road, Xuhui District,  
Shanghai, China (200233)  
Tel +86-21-6440-3384 (808, 805)  
Fax +86-21-6440-3389

#### Doosan Infracore Construction Equipment India Pvt. Ltd. (Machine Tool Div.)

106 / 10-11-12, Amruthahalli, Byatarayanapura,  
Bellary road, Bangalore-560 092, India  
Tel +91-80-4266-0122 / 121 / 100

#### Doosan International South East Asia Pte Ltd.

42 Benoi Road, Jurong 629903, Singapore  
Tel +65-6499-0200  
Fax +65-6861-3459



➤ For more details, please contact Doosan.

➤ The specifications and information above-mentioned may be changed without prior notice.